

00021: L17: (554) 116 and 113

Active

- L1: (53323) recombinant peptide
- L2: (584035) production
- L3: (1463284) method
- L4: (428200) 12 and 13
- L5: (36078) 14 and 11
- L6: (36078) 14 and 11
- L7: (194184) growth hormone
- L8: (197392) growth hormone or GH
- L9: (194234) growth hormone or GH
- L10: (127546) trisulfide bridge
- L11: (10954) trisulfide bridge and
- L12: (27957) ferment\$

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1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6245901 B1	20010612	60	Modified polypeptide	530/402	435/192		von der
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6245335 B1	20010612		Choline binding	424/190.1	424/244.1		Claus
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4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6238661 B1	20010529		Adhesively applied	128/200.24	128/207.13		et al.
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11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6221351 B1	20010424		derivatives of polvanio		: 514/54		Burns, J
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6215007 B1	20010410						Khosla,



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- L12: (27957) ferment\$
- L13: (644) ferment\$ and 111
- L14: (408502) sodium phosphate

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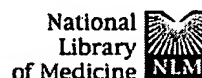
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447	US 5086041	19920204	13	Methods of using prolonged release somat	514/12	514/2		Mitchell, Jam
448	US 5071747	19911210	7	Porous polymeric support containing biol	435/41	: 514/21		Hough, David
449	US 5066586	19911119	8	Process for preparation of novel angiotensin II	435/119	: 435/180		Chen, Shieh-S
450	US 5057141	19911015	30	Compositions for biological control of p	71/28	: 424/195.15		Rodriquez-Kab
451	US 5053329	19911001	7	Process for preparation of novel angiotensin II	435/119	: 424/757		R. Chen, Shieh-S
452	US 5047523	19910910	11	Nucleic acid probe for detection of neisseria	536/24.32	435/177		Woods, Derek
453	US 5038852	19910813	31	Apparatus and method for performing automate	165/267	: 435/5		Johnson, Larr
454	US 5037644	19910806	29	Pharmaceutical compositions of recombi	424/85.2	236/46R		Shaked, Ze'ev
455	US RE33653	19910730	26	Human recombinant interleukin-2 muteins	424/85.1	: 422/116		Mark, David F
456	US 5017229	19910521	6	Water insoluble derivatives of hvaluron	106/162.2	: 514/12		Burns, James
457	US 5013713	19910507	13	Prolonged release of biologically active som	514/2	: 424/85.6		Mitchell, Jam
458	US 5002876	19910326	22	Yeast production of human tumor necrosis fa	435/69.5	: 106/190.		Sreekrishna,
459	US 5001048	19910319	13	Electrical biosensor	435/4	: 435/254.2		Kotikanvadan
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Ubiquitin fusion technology: bioprocessing of peptides.

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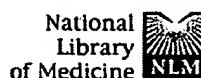
Proteinix Company, Gaithersburg, Maryland 20877, USA.

Ubiquitin fusion technology represents an emerging method for economically producing peptides and small proteins in the bacterium *Escherichia coli*. Our focus is on peptide production where the need for cost-effective, scaleable processes has recently been highlighted by Kelley (1996). There are two principal features: (1) the expression system consists of a suitable *E. coli* host strain paired with a plasmid that encodes the ubiquitin fusion and (2) an ubiquitin-specific protease, UCH-L3, which cleaves only C-terminal extensions from ubiquitin. In this work, multigram yields were obtained of four ubiquitin fusions derived from cell paste generated in single 10-L fermentations. All were expressed intracellularly and remained soluble at extremely high levels of expression. Bacterial freeze-thaw lysates contained over 95% pure ubiquitin fusion protein. All four fusions were efficiently cleaved to ubiquitin and the peptide products. In one case, the final yield of peptide was 1.08 g from 3 L of low cell density bacterial culture. The combination of exceptional overexpression of the ubiquitin-peptide fusion proteins and a robust and specific protease are unique advantages contributing to a cost-effective, scaleable, and generic bioprocess for peptide production.

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Production and purification of a recombinant human hsp60 epitope using the cellulose-binding domain in Escherichia coli.

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Shpigel E, Elias D, Cohen IR, Shoseyov O.

The Faculty of Agriculture, The Hebrew University of Jerusalem, Rehovot, 76100, Israel.

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The heat shock protein hsp60 plays a functional role in insulin-dependent diabetes mellitus. The hsp60 epitope p277 (aa 437-aa 460) is effective in vaccinating mice against diabetes. A synthetic peptide gene (p277) that encodes the human hsp60 epitope was cloned to the 3' end of the cellulose-binding domain gene (cbd). CBD-p277 was overexpressed in Escherichia coli and purified on a cellulose column. A methionine at the C-terminal end of CBD enabled CNBr cleavage between CBD and p277. After CNBr cleavage, free CBD and residual uncleaved CBD-p277 were recovered by cellulose chromatography. The p277 peptide was further purified on a RPC-FPLC column. The molecular weight of the recombinant peptide was confirmed by electrospray mass spectrometry. The recombinant peptide was found to be biologically active in assays involving clone C9 T-cell proliferation, lymph-node cell proliferation, and antibody production. Thus the use of CBD as an affinity tag and the utilization of affordable cellulose matrices offers an attractive method for the production and purification of recombinant peptides. Copyright 1998 Academic Press.

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=> s reduction of trisulfide
L3 4 REDUCTION OF TRISULFIDE

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AN 2000:414146 CAPLUS
DN 133:222512
TI New effective precursors for the formation of episulfides
AU Abu-Yousef, Imad A.; Harpp, David N.
CS Department of Chemistry, American University of Sharjah, Sharjah, United Arab Emirates
SO Sulfur Lett. (2000), 23(3), 131-137
CODEN: SULED2; ISSN: 0278-6117
PB Harwood Academic Publishers
DT Journal
LA English
OS CASREACT 133:222512
RE.CNT 14
RE
(3) Abu-Yousef, I; J Org Chem 1997, V62, P8366 CAPLUS
(4) Abu-Yousef, I; J Org Chem 1998, V63, P8654 CAPLUS
(5) Abu-Yousef, I; Sulfur Rep 1997, V20, P1 CAPLUS
(6) Abu-Yousef, I; Tetrahedron Lett 1993, V34, P4289 CAPLUS
(7) Abu-Yousef, I; Tetrahedron Lett 1994, V35, P7167 CAPLUS
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AN 1992:48660 CAPLUS
DN 116:48660
TI Perthiyl radicals, trisulfide radical ions, and sulfate formation: a combined photolysis and radiolysis study on redox processes with organic di- and trisulfides
AU Everett, Steven A.; Schoeneich, Christian; Stewart, John H.; Asmus, Klaus Dieter
CS Dep. Appl. Phys. Sci., Univ. Ulster, Newtownabbey, BT37 OQB, UK
SO J. Phys. Chem. (1992), 96(1), 306-14
CODEN: JPCHAX; ISSN: 0022-3654
DT Journal
LA English

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 1983:414099 CAPLUS
DN 99:14099
TI High-pressure growth of polycrystalline molybdenum disulfide
AU Srivastava, S. K.; Avasthi, B. N.; Das, B.; Basu, S.
CS Dep. Chem., Indian Inst. Technol., Kharagpur, 721 302, India
SO Mater. Lett. (1983), 1(5-6), 178-80
CODEN: MLETDJ
DT Journal
LA English

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 1982:562100 CAPLUS
DN 97:162100
TI Mechanism of reduction of bis(2-hydroxyethyl) trisulfide by eaq^- and

.bul.CO2-. Spectrum and scavenging of RSS.bul. radicals
AU Wu, Zhennan; Back, Thomas G.; Ahmad, Rizwan; Yamdagni, Raghav; Armstrong,
David A.
CS Dep. Chem., Univ. Calgary, Calgary, AB, T2N 1N4, Can.
SO J. Phys. Chem. (1982), 86(22), 4417-22
CODEN: JPCHAX; ISSN: 0022-3654
DT Journal
LA English

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